SECTION 4. WATER QUALITY TECHNICAL REPORT GUIDELINES

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I. Purpose and Content

A Water Quality Technical Report (WQTR), when required, shall describe the permanent storm water Best Management Practices (BMPs) that will be incorporated in the project to mitigate the impacts of urban runoff and changes in the hydrologic regime of downstream Receiving Waters and habitat integrity due to the development. A WQTR shall address all the requirements included in the City of Chula Vista Standard Urban Runoff Mitigation Plans (SUSMP) included in Section 3 of this Manual. The following specific information shall also be included in a WQTR and shown in the appropriate plans as applicable:

a. Project location, description, and physical features.

b. Surrounding land use and proposed project land use.

c. Watershed contribution and potential impacts to downstream 303(d)-listed State Impaired Water Bodies.

d. Beneficial uses of surface waters and ground water in and surrounding the project.

e. Characterization of project runoff both pre-project and post-project, hydrologic Conditions of Concern, locations of storm water outfalls, tributary drainage areas to outfalls, changes in downstream erosion potential, and site hydrology.

f. Water quality Pollutants of Concern, treatment volume based on water quality design storm, site plans and adjacent land use, and soil characteristics.

g. Mitigation measures implemented to the Maximum Extent Practicable (MEP) to protect water quality, including:

- Site Design BMPs
- Low Impact Development (LID) BMPs
- Source Control BMPs
- Structural Treatment Control BMPs.

h. Mitigation measures to prevent increases in downstream erosion and where applicable, Hydromodification implemented to MEP, including:

- Site Design BMPs
- Low Impact Development BMPs
- Source Control BMPs

- Structural Treatment Control BMPs
- Where applicable, hydrological calculations to demonstrate compliance with the Interim Hydromodification Criteria or Hydrograph Modification Management Plan (HMP) requirements included in Section 3 of this Manual
- A summary of findings by the drainage study required in Section 3.VI.1.c, including a table comparing pre- and post-development peak discharge flow rates and durations for two- and ten-year frequency storms.

i. Any infiltration BMPs proposed for use on the project.

j. Agreements, easements, licenses relating to proposed BMP construction, location, maintenance, or changes in drainage character.

k. Project map with watershed and surface water bodies within project area.

l. Information relating to threat to water quality including:

- Soil erosion potential
- Site slope
- Project size and type
- Sensitivity of receiving water bodies
- Proximity to receiving water bodies
- Non-storm water discharges

II. Minimum Requirements

Any preliminary or final WQTR submitted to the City of Chula Vista shall have the stamp and signature of a Registered Civil Engineer who has prepared or supervised the preparation of the WQTR. The following information shall be included in a WQTR:

1. Organization and Content

- A table of contents
- A vicinity map
- A project description
- A narrative of project activities

2. BMP Plan

The BMP Plan shall be of a suitable scale (preferably 24”x36”) to clearly show all relevant details required below. The entire property shall be included on one sheet (use key map if multi-sheets). The following information shall be included on the BMPs Plan:

- Drainage areas and directions of flow. Pre- and post-development flow rates at entry and discharge points shall be shown on the BMP Plan.
- Private storm drain systems
- Nearby water bodies
- Locations of storm drainage systems (ditches, inlets, storm drains, etc.)
- Location of existing and proposed storm water controls, including site design, LID features, and treatment control BMPs
- Details and sections of proposed site design, LID, and treatment control BMPs
- Locations of impervious areas, including paved areas, buildings, and covered areas
- Locations where materials would be directly exposed to storm water
- Locations of buildings and activity areas where pollutants may be generated or come into contact with storm water, such as fueling islands, garages, waste container areas, wash racks, hazardous material storage areas, etc.
- Areas of potential soil erosion, including areas downstream of the project
- Environmentally Sensitive Areas near the development

3. Pollutants and Conditions of Concern

Pollutants of Concern consider the impacts of potential discharges of pollutants from the project on the quality of Receiving Waters during the post-construction phase of the project. Conditions of Concern deal with the project's hydrologic impacts on downstream erosion and habitat integrity. Concepts within Interim Hydromodification Criteria and Hydrograph Modification Management Plans (HMP) attempt to minimize hydrologic impacts of developments on downstream erosion and habitat integrity. The following information shall be included in all WQTRs:

- Watershed or watersheds containing the project site
- Pollutants of Concern within Receiving Waters downstream of the project site
- Impaired water bodies downstream of the project site and Pollutants of Concern within such impaired water bodies
- Primary and secondary Pollutants of Concern based on anticipated and potential pollutant discharges from the project and pollutants within downstream Receiving Waters
- Impacts of the project on hydrologic regime of downstream Receiving Waters and habitat integrity, such as discussed in Section 3.IV.1.c: Identify Conditions of Concern. Include a summary table comparing pre-development and post-development peak discharge rates and volumes for the two-year and ten-year frequency, Type I storm, of six-hour or 24-hour duration (whichever is the closer approximation of the site's time of concentration); or, where applicable, a summary of hydrological calculations demonstrating compliance with the Interim Hydromodification Criteria requirements.

4. Types of BMPs

a. Site Design BMPs

- Minimize impervious footprint
- Conserve natural resources and areas
- Minimize directly connected impervious areas
- Protect slopes and channels
- Use natural site design features (LID) to the MEP

b. Source Control BMPs

- Provide storm drain system stenciling and signage
- Design outdoor material storage areas to reduce pollution introduction
- Design trash storage areas to reduce pollution introduction
- Use efficient irrigation systems and landscape design, and employ integrated pest management principles
- Incorporate requirements applicable to individual priority project categories:

    - Private Roads
    - Residential driveways and guest parking
    - Dock areas
    - Maintenance bays
    - Vehicle wash areas
    - Outdoor processing areas
    - Equipment wash areas
    - Parking areas
    - Roadways
    - Fueling areas
    - Steep hillside landscaping

c. Structural Treatment BMPs

- Type of BMPs selected for treatment control. Note that drainage inserts may only be used in exceptional cases to augment more effective treatment facilities or sometimes used alone when more effective facilities have been deemed infeasible at the City's discretion.
- Basis for selection. Include targeted pollutants, justification, and alternative BMPs analysis
- Locate BMPs near pollutant sources
- Consider restrictions on the use of infiltration BMPs
- Design criteria and numeric sizing criteria (include calculations)

- Pollutant removal information (other than vendor specifications)
- Literature reference

5. Maintenance

- Identify the Responsible Party who will implement and maintain the BMPs into perpetuity. Responsible Party in this context means the property owner or any other person, corporation, or legal entity accepting, in writing and in City approved form, responsibility on behalf of the property owner.
- An Inspection, Operation and Maintenance Plan (IOMP) and schedule as described in detail in Section 8 of this Manual.
- An estimate of annual maintenance costs for structural and non-structural BMPs, including funding mechanisms
- In the final WQTR, include an executed copy of the "Storm Water Management Facilities Maintenance Agreement with Grant of Access and Covenants". A template for this Agreement is included at the end of Section 8 of this Manual.

6. Geotechnical/Soils Report

The following topics shall be included in the geotechnical/soils investigations of all new development and redevelopment projects in the City of Chula Vista. A summary of the geotechnical/soils report addressing the following issues shall be included in the WQTR:

- Soil erosion potential before and after grading, and recommendations for minimizing erosion
- Potential for infiltration permanent BMPs in view of soil permeability and depth to water table.
- Recommendations to enable the project to use LID Site Design BMPs. Such recommendations may include the use of impervious layers near foundations, under-drains, etc.
- Potential for temporary or permanent groundwater extraction, and if coverage under the NPDES Permit No CAG919001, R9-2007-0034, or any other re-issuances of those permits, or any other regulatory permit for discharges of groundwater to the Receiving Waters is required.